

Claims

1. An isolated polynucleotide comprising a promoter from *Rhodococcus*, characterised in that said promoter is the *kstD* promoter.
2. Polynucleotide according to claim 1, wherein said *Rhodococcus* is *Rhodococcus erythropolis*.
- 5 3. Polynucleotide according to claim 1 or 2, characterised in that it comprises nucleotide 1-158 from the sequence of SEQ ID NO:3 or a functional part thereof.
4. Polynucleotide according to claims 1-3, further comprising a nucleotide sequence encoding a transcription regulator of said promoter.
- 10 5. Polynucleotide according to claim 4, wherein the expression of said nucleotide sequence is controlled by steroidal compounds.
6. Polynucleotide according to claim 5, wherein said regulator comprises the *kstR* gene or a homologue or a functional part thereof.
7. Polynucleotide according to any one of the preceding claims, further
15 comprising a nucleotide sequence encoding a polypeptide that is operably linked to said promoter.
8. Polynucleotide according to any one of the preceding claims, further comprising a selectable marker, a counter-selectable marker and/or a reporter gene.
- 20 9. Polynucleotide according to any one of the preceding claims, further comprising a signal sequence.
10. Recombinant vector comprising a polynucleotide according to any one of the claims 1-9.
11. Recombinant vector according to claim 10, further comprising
25 a nucleotide sequence having multiple cloning sites.
12. Host cell transformed with the recombinant vector according to claim 10 or 11.

13. Host cell according to claim 12, wherein said host cell is a bacterium from the order of Actinomycetales.
14. Bacterial host cell according to claim 13, wherein said host cell is selected from bacteria belonging to the families of *Actinomycetaceae*,
5 *Corynebacterineae*, *Mycobacteriaceae*, *Nocardiaceae*, *Brevibacteriaceae*, or *Micrococcaceae*.
15. Bacterial host cell according to claim 13, wherein said host cell is selected from bacteria belonging to the genus *Rhodococcus*.
16. Bacterial host cell according to claim 13, wherein said host cell is the
10 bacterium *Rhodococcus erythropolis* RG10 as deposited under number DSM 15231 with the DSMZ-Deutsche Sammlung von Mikroorganismen und Zellkulturen.
17. Host cell according to any one of claims 12-16, which does not contain a functional *kstR* gene or a homologue or a functional part thereof.
- 15 18. Method for producing a desired protein in a host cell, comprising transforming a host cell with a recombinant vector of claims 10 or 11.
19. A microbial expression system comprising a polynucleotide according to any one of the claims 1-9.
20. Method for constitutive expression of a protein of interest
20 comprising transforming a host cell according to claim 17 with a polynucleotide construct wherein the expression of the coding region of said protein is under control of the *kstD* promoter.
21. Use of a steroid for the induction of expression of a heterologous protein, which expression is under control of the *kstD* promoter, said steroid
25 lifting the repressor function exerted by the *kstR* gene product.
22. Method for identifying compounds that regulate the activity of the *kstD* promoter comprising exposing a host cell according to any one of the claims 12-17 to at least one compound whose ability to modulate the activity of a *kstD* promoter is to be determined, and monitoring said cell for modulated
30 *kstD* promoter activity.